# *Facility Condition Assessment*

Installation **R**eadiness **R**eporting **S**ystem

IRRS

FRES?
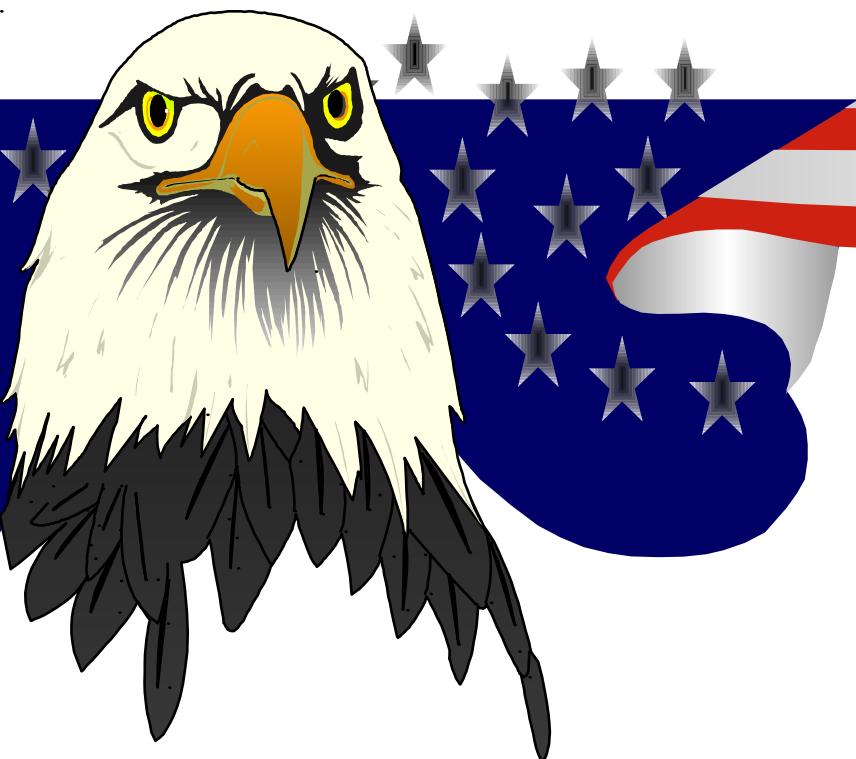
IRRS Concept

- "A decision <u>support</u> system to improve management of limited
resources for installations."

- Designed --
  - Similar to other Services' readiness reporting systems (primarily operational readiness)
  - To be a <u>CO's</u> tool
  - To be user friendly
  - To satisfy OSD reporting requirements; feeds DoD IRR
  - Use at all levels: Installation, Claimant/Region, CNO

IRRS Concept, cont'd.

- *Identifies problems and estimates resources needed --*

  - ■ Quality (condition) of facilities

  - ■ Quantity of facilities

  - ■ Cost to maintain current ratings (Sustainment) – removed FY-03

  - ■ Cost to improve ratings (Renovation/Replacement)

  - ■ Will provide job list similar to BASEREP

  - ■ Generates new SRM Report for R&M Reqmnts

- *Objective and Auditable Approach --*

  - ■ Based on AIS/Real Property Inventory data/BFR

  - ■ Uses accepted calculations/standards

Look at Facilities From a Readiness Perspective (Follows DoD Terminology)

C1/F1

Ready for all Missions: only minor deficiencies with negligible impact on capability to perform required missions

C2/F2

Ready for Bulk of Missions: some deficiencies with limited impact on capability to perform required missions

C3/F3

Ready for Some Portions of Missions: significant deficiencies that prevent performing some missions

C4/F4

Not Ready for Missions: major deficiencies that preclude satisfactory mission accomplishment

THE IRRS "CHICLET"
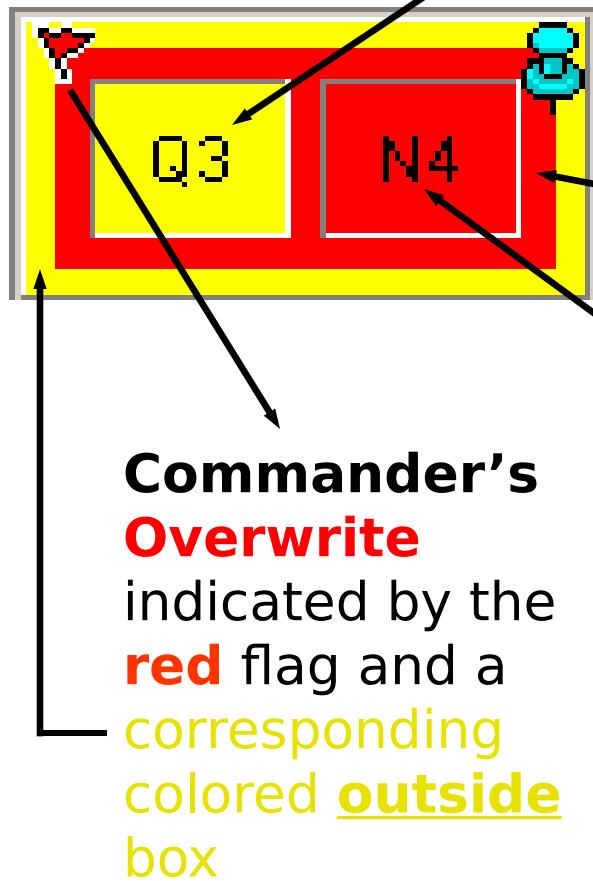
Quality "Q"-Rating
(based on AIS, Quality Points, PRV)

Blue **Push Pin** identifies that there is a comment (req'd for all "3" and "4" ratings; list projects to improve

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Q3   N4
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Overall **Facility "F"-Rating**
(worst of Quality and Quantity Ratings)

Commander's
Overwrite
indicated by the
red flag and a
corresponding
colored **outside**
box

Quantity "N"-Rating On – Hand Facilities divided by Required Facilities (BFR)

IRRS 02 FINAL VIEW (F, Q, N)

	1 - Operational and Training Facilities	2 - Maintenance and Production Facilities	3 - Research, Development, Test and Evaluation Facilities	4 - Supply Facilities	5 - Hospital and Medical Facilities	6 - Administrative Facilities	7 - Housing and Community Facilities	8 - Utilities and Grounds Improvements
Commander U.S. Atlantic Fleet	Q2 N1	Q4 N1	Q2 N1	Q3 N1	Q3 N1	Q4 N1	Q4 N2	Q2 N1
Commander U.S. Pacific Fleet	Q2 N1	Q2 N1	Q2 N2	Q2 N1	Q4 N1	Q3 N1	Q3 N2	Q2 N1
Naval Sea Systems Command	Q4 N3	Q3 N1	Q2 N2	Q1 N1	Q4 N2	Q4 N3	N4	Q2 N1
Naval Air Systems Command	Q2 N1	Q3 N2	Q2 N1	Q1 N1	Q4			
Commander Naval Forces Europe	Q1 N1	Q3 N1	N/A N/A	Q2 N3	Q1			
Chief of Naval Operations	Q3 N1	Q4 N1	Q1 N2	Q3 N3	Q3			
Naval Education and Training Command	Q3 N1	Q3 N1	Q4 N2	Q4 N1	Q3			
Commander Naval Reserve Forces	Q2 N1	Q3 N1	N/A N/A			N1	Q4 N2	Q2 N1
Strategic Systems Programs Office	Q4 N3	Q3 N2	Q3 N1				Q3 N3	Q3 N1

PUSH PIN DESIGNATES COMMENTS; MUST EXPLAIN IMPACT FOR ALL 3 & 4 RATINGS & LIST PROJS. TO IMPROVE

FLAG DESIGNATES OVERWRITE

Baserep to Category Groups

Old : BASEREP (28 mission categories)
New : IRRS - 9 DoD categories; Navy reports 8 (Category Group; CG)

IRRS Facility Class (# CGs)	NAVY CATCODES
(note:	
- MOBILITY -not reported by Navy	with some exceptions)
OT - OPERATIONS AND TRAINING (7)	1xxxx (excl. Dredging)
MP - MAINTENANCE AND PRODUCTION (2)	2xxxx
RD - R D T &E (3)	3xxxx
SU - SUPPLY (5)	4xxxx
MD - MEDICAL (4)	5xxxx
AD - ADMINISTRATION (3)	6xxxx
CH - COMMUNITY and HOUSING (6)	7xxxx
UG - UTILITIES AND GROUNDS (7)	8xxxx
(unofficial	TOTAL CGs: (37?)
+9xxxx excl.	Demo)

IRRS (DoD) Facility Groupings

8 Facility Classes (e.g. **6**1010**)** (FCs)

Ops & Training, Maint & Production, RDT&E, Supply
Medical, Admin, Hsng & Community, Utils & Grnds

"Land" Deficiencies are Excluded

Approx. 38 Category Groups (e.g. **61**010**)** (CGs)

Approx. 140 Basic Categories (e.g. **610**10**)** (BCs)

Quality & Quantity Rating Roll-Up Calculations are weighted

**Approx. 300 Facility Analysis Categories (**e.g. **6100**)** (FACs)

But, of course, it's not this "clean"; there are exceptions to the mapping

Individual Facs. (e.g. **61010**)**
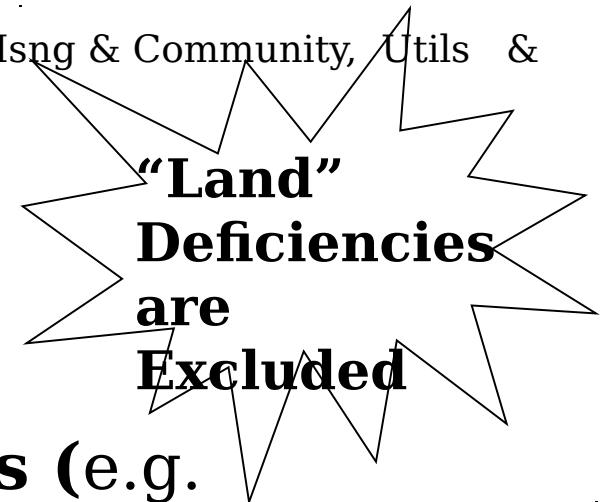
Quantity N-Ratings
(% of Facility Requirement)

On-Hand

Shortage

N1	N2	N3	N4
$\geq$95%	$\geq$80%	$\geq$60%	<60%
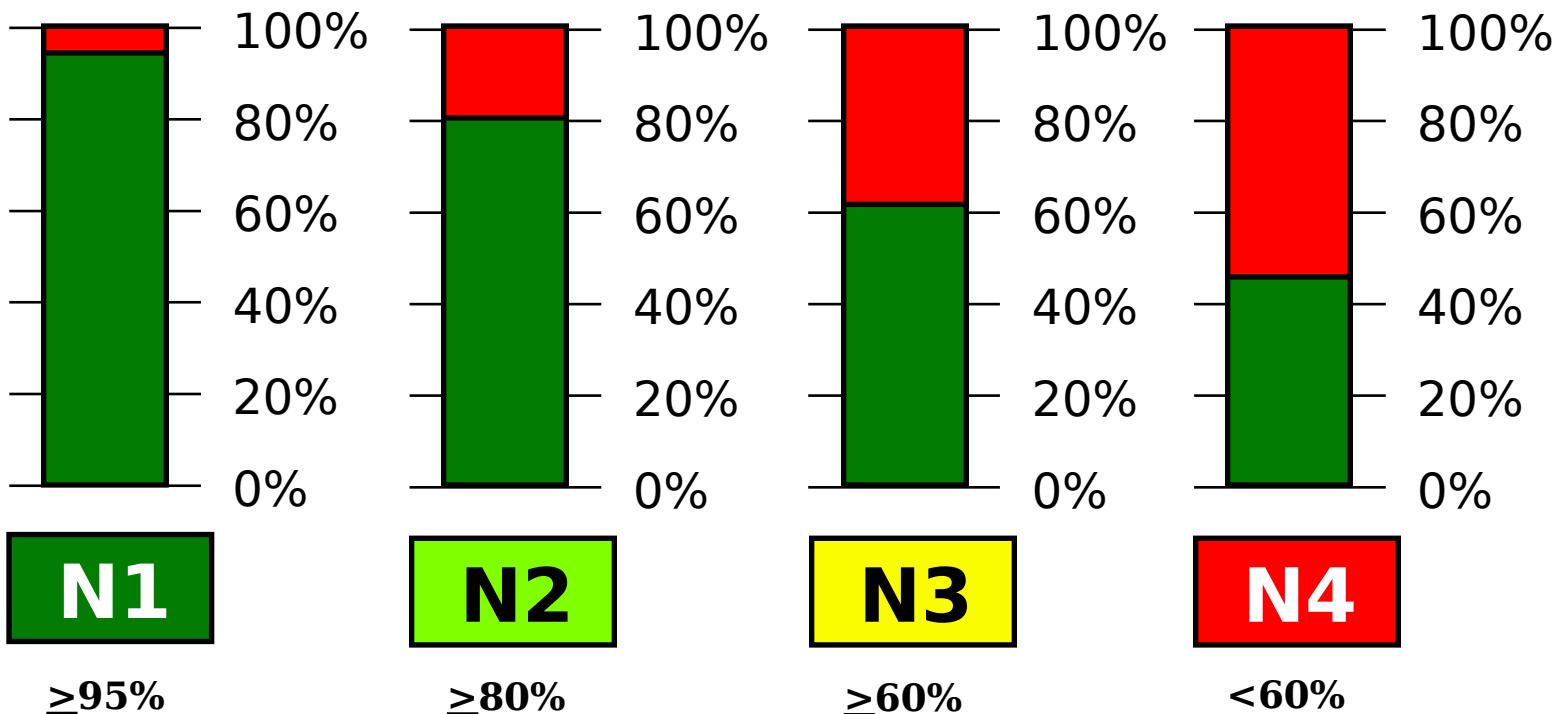
$$\text{Quantity N-Rating} = \frac{\text{On-hand Facilities}}{\text{Required Facilities}}$$

Quality Q-Ratings

Three Part Rating (FCI, Qual. Pts, PRV(Weight):

- **Good/Fair/Poor** points based on FCI calculated from AIS data Good: FCI < .05 (3 points)

  Fair: FCI .05 - .10 (2 points)

  Poor: FCI > .10 (0 points)

  "Very Poor: FCI > .50 = Replace Facility

Then weighted by facility PRV to obtain overall FAC cutoff %:

$$\frac{(Points_1 \times PRV_1) + (Points_2 \times PRV_2) + ...}{(3 \times PRV_1) + (3 \times PRV_2) + ...} = \text{X\% of max possible points}$$

- Quality Q-Rating assigned based on % range for X:

  Q1: ≥ 90% ; **Q2**: ≥ 75% ; **Q3**: ≥ 60% ; **Q4**: < 60%

G/F/P calculated for each facility

Ranges adopted from NACUBO; may change soon

Q Ratings based on G/F/P combined at FAC level

Quality Q-Ratings
(% of Facility Ratings)
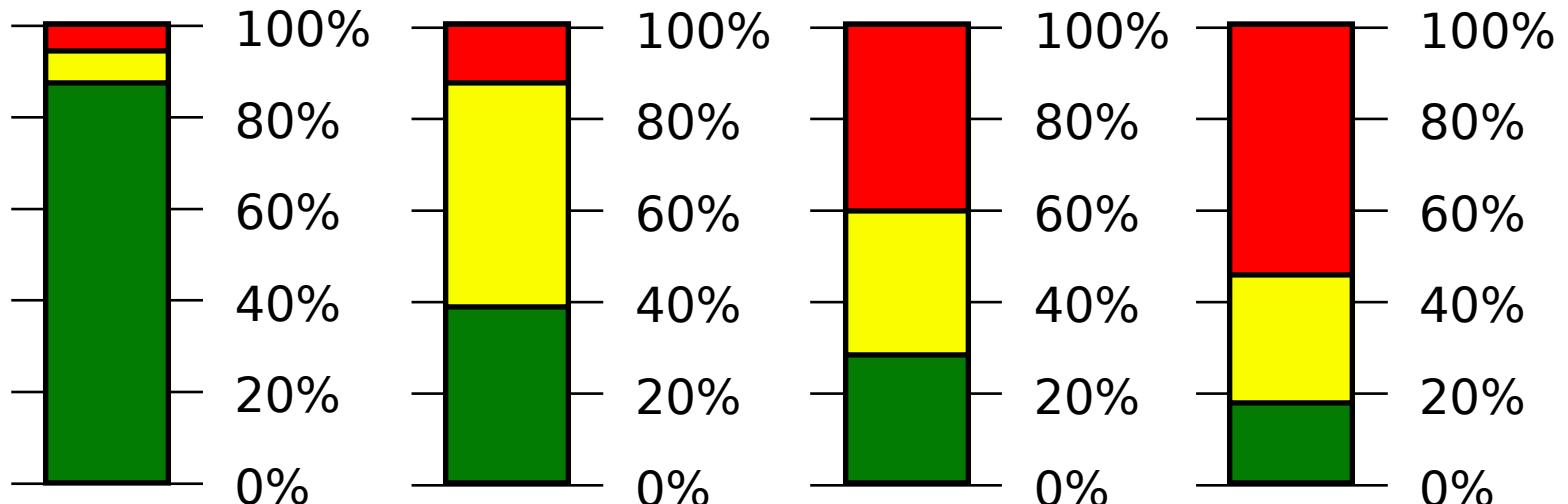
Q1	Q2	Q3	Q4
≥90%	≥75%	≥60%	<60%

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quality point "feeder data":

GOOD	FAIR	POOR

= 3 Points = 2 Points = 0 Points

IRRS Cost Factors

Sustainment Cost Factors (Developed
- Keep Facilities in Current Condition
- Based on Commercial Factors for <u>Most</u> FACs
- Based on Service Cost Data for <u>Unique</u> FACs

Renovation Cost Factors (Derived from
- Fair-to-Good is 50% of New Construction Unit
- Poor-to-Good is 100% of New Construction Un

Construction Cost Factors (Derived fr
- Based on Tri-Service and Engineer Estimating
- Starts with Unit Construction Factors (5-Foot
- Adjustments for Contingency, Management, E
- Includes Supporting Facilities for a "Whole P

Local Area Cost Factors (Published by

DELETED FY-03

How much to get better ? Quantity Cost Calculation

EXAMPLE: Activity now has 70% (N3) of General Purpose Admin requirement (136 KSF/195 KSF); New Construction Unit Cost is $159.31/SF

Based on Quantity %'s shown previously, activity needs 95% for N1, 80% for N2, 60% for N3:

To achieve N1: (95% - 70%) x 195,000 x $159.31 = $7.8 mil

To achieve N2: (80% - 70%) x 195,000 x $159.31 = $3.1 mil

To achieve N3: 0 Dollars req'd; already N3

How much to get better ? Quality Cost Calculation

EXAMPLE: Activity-General Purpose Admin condition is Q3 (70% of possible quality points (285,600/408,000)). Based on Quality %'s shown previously, activity needs 90% for Q1, 75% for Q2, 60% for Q3:

To achieve Q1: Assuming accurate AIS data, correction of 90% (min.) of reported deficiencies will result in a Q1 Quality Rating. Dollars required = cost to correct 90% of deficiencies reported on the AIS/IRRS.

To achieve Q2: AIS/IRRS needs 75% (306,000) of possible points or an additional 20,400. IRRS software uses hierarchy that considers good/fair/poor and renovation/replacement unit costs to calculate $ required.

To achieve Q3: 0 Dollars req'd; already Q3

IRRS also Provides Sustainment Costs

IRRS Includes Sustainment Costs for each FAC :

- Funds required to sustain existing facilities at their ***current condition*** (keep from getting worse)
- Formula is: quantity on hand (NFADB) x FSM Sustainment unit cost x area cost factor

DELETED FY-03

Last Step: Overwrites and Comments

CO can <u>Overwrite</u> Ratings…

- At Category Group (CG) level
- No cost calculations will change/ no   calculated ratings will change
- Justification required for Overwrites:
    - Consider Off Base Facs And Services
    - Disagrees With Calc. Rating

Last Step: Overwrites and Comments cont'd.

CO Comments ...

For EACH CG & FC 3 or 4 rating, MUST:

- provide summary of problem which caused the rating
- Explanation of mission impact
- Description of proposed solution
- If solution is a project, provide project no., cost, and program y desired; must agree with AIS, IP etc.

2003 IRRS Enhancements

- **Change Quantity N1 chiclet color to cyan (light blue) for ratings > 100%**
  (inventory exceeds reqmnt - BAD); show actual %

- **Change calculation for Quantity 'N-rating' so reqmnts will = reqmnts of activity where Host Tenant code is "0" + reqmnts that the activity alternately hosts**

- **Change calculation for Quantity 'N-rating' to use each Facility Use Category Code rather than Prime Use; Quality will use Prime**

- **Add overwrite capability to show Condition 'C-Rating' at Facility Class level (for claimant only)**

2003 IRRS Enhancements Cont'd

- Make "Comment" / "Overwrite" indicators in different colors that correspond with, and remain consistent to, the level (Facility Class or Category Group) where the comment / overwrite was done

- Change 'FAC Detail Screen' to read "Quality Rating by Prime Use" and "Quantity Rating by Utilization"; modify Quality view to show PRV based on Prime Use Catcode

- Use and display all appropriate Department of Defense (DoD) Facility Analysis Categories (FACs); identify those without DoD Cost Factors

- Change "Minor Construction Projects Report", to read, "New Footprint Requirements"; minimum threshold for inclusion in this report will be $1,000

2003 IRRS Enhancements Cont'd

- **Add BUMED as a claimancy**

- **Modify Quality rating calculations to use pure FCI at the facility level; eliminate good / fair / poor methodology (MAY happen at a later date)**

- **Change "IRRS" to "FRES?" everywhere**
- **No longer have to "submit" ratings to higher HQ. Comments/Overwrites pushed daily to higher levels of command**

2003 Display Box Comments and Justification Indicators

Overall (Worst) **Facility Rating**

Red Flag at **top** left corner identifies **overwrite** at the **current level and a corresponding color outside box**

Quality **Rating**

Blue Push Pin at **top right corner** identifies **comment** at the **current level**

Q1   N3

Quantity Rating

Overwrites and **Comments** at **bottom** of display box indicates **overwrites and/or comments** at **Category Group** (lower) level

~~2003~~ 2004 Proposed Web Based FRES (Facility Readiness Evaluation System)

Rewrite existing IRRS client/server application to web-based FRES

- **NMCI guidance**
- **CADD/GIS standards from the SDSFIE/FMSFIE Software (Release 2.210)**
- **Host and relocate web-based IRRS to NITC servers at Port Hueneme, California.**

1) **Create FRES registration page for new users and for existing users to request additional privileges**
2) **Modify FRES to give users ability at login to choose view (Command or Maintenance Funding) and year**
3) **Modify FRES to add overwrite capability to show Readiness 'C-rating' editor at Facility Class level for Regions and Activities.**
4) **Create capability in FRES to annually prepare /submit Installation Readiness Report (IRR).**

IRRS REPORTS

- AIS: 1) SRM Deficiency List

  2) DoD Category Group Summary

- Project Report: New Footprint Requirements Report

- Anomaly Reports: 1) SRM Deficiency List Anomaly Report

  2) New Footprint Requirements Anomaly   Report

- "Summary" report for Installation; print and CO sign (next slide)

IRRS Summary Condition Report
N12345 - NAVSTA SAMPLE

	Qual	Quant	Overall
1 Operational and Training Facilities	Q-2	N-1	F-2
11 Airfield Pavements	Q-4	N-3	F-4
12 Liquid Fueling and Dispensing Facilities	Q-1	N-2	F-2
13 Communications, Navigation Aids & Airfield Lighting	Q-1	N-1	F-1
17 Training Facilities	Q-1	N-3	F-3
2 Maintenance and Production Facilities	Q-2	N-1	F-2
21 Maintenance Facilities	Q-2	N-1	F-2
22 Production Facilities	N/A	N/A	N/A
3 Research, Development, Test and Evaluation Facs	N/A	N-1	F-1
31 Research, Development, Test and Eval Buildings	N/A	N-1	F-1
4 Supply Facilities	Q-1	N-2	F-2
41 Liquid Storage - Fuel and Nonpropellants	Q-1	N-3	F-3
43 Cold Storage	N/A	N-1	F-1
44 Covered Storage	Q-1	N-1	F-1
45 Open Storage	Q-1	N-1	F-1
5 Hospital and Medical Facilities	Q-2	N-1	F-2
53 Medical and Medical Support Facilities	Q-1	N-1	F-1
54 Dental Clinics	Q-3	N-1	F-3
55 Dispensaries and Clinics	N/A	N-4	F-4
6 Administrative Facilities	Q-3	N-1	F-3
61 Administrative Buildings	Q-3	N-1	F-3
7 Housing and Community Facilities	Q-1	N-1	F-1
71 Family Housing	Q-1	N-1	F-1
72 Unaccompanied Personnel Housing	Q-2	N-2	F-2
73 Personnel Support and Service Facilities	Q-1	N-1	F-1
74 Indoor Morale, Welfare and Recreational Facilities	Q-2	N-1	F-2
75 Outdoor Morale, Welfare and Recreational Facilities	Q-1	N-1	F-1
8 Utilities and Grounds Improvements	Q-2	N-1	F-2
81 Electric Power	Q-1	N-1	F-1
82 Heat and Refrigeration (Air Conditioning)	Q-2	N-1	F-2
83 Sewage and Waste	Q-4	N-1	F-4
84 Water	Q-1	N-1	F-1
85 Roads and Other Pavements	Q-4	N-1	F-4
86 Railroad Facilities	Q-1	N-1	F-1
87 Ground Improvement Structures	Q-1	N-1	F-1
89 Miscellaneous Utilities	Q-1	N-1	F-1

 * Indicates Edited Value

_____

Commanding Officer's Signature

Facility Degradation Model (FDM)

- **Provides a prediction of future Ratings and facility condition based on current condition and user entered funding levels**

- **Degradation rates are calculated from previous year(s) data**

- **Calculates penalty costs of under-funding of sustainment**

- **Provides both graphical and tabular outputs**

Facility Degradation Model (FDM)

Planned Funding Predicts Future Conditions

Future

Now $ → **F1**

F2 $ → **F2**

$ → **F3**

$ → **F4**

Future

Now $ → **GOOD**

FAIR $ → **FAIR**

$ → **POOR**
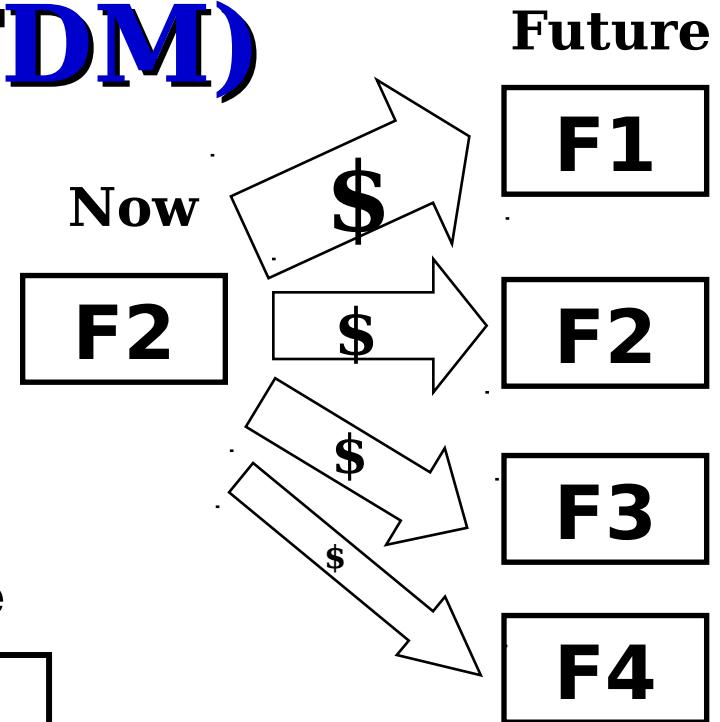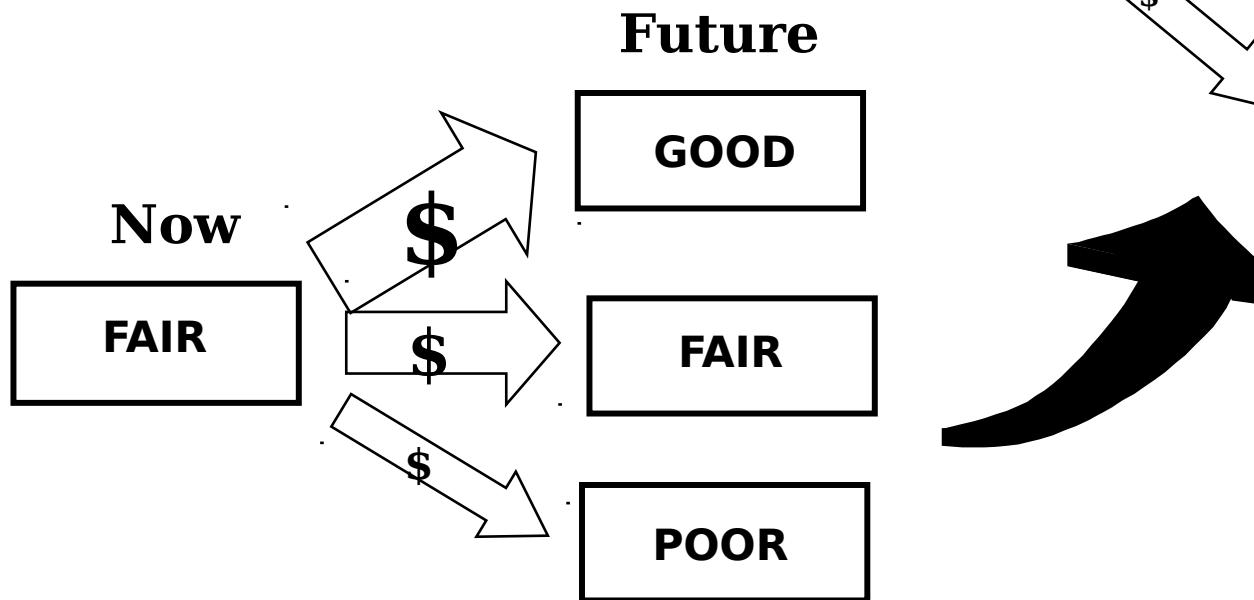
Facility Degradation Module (FDM)
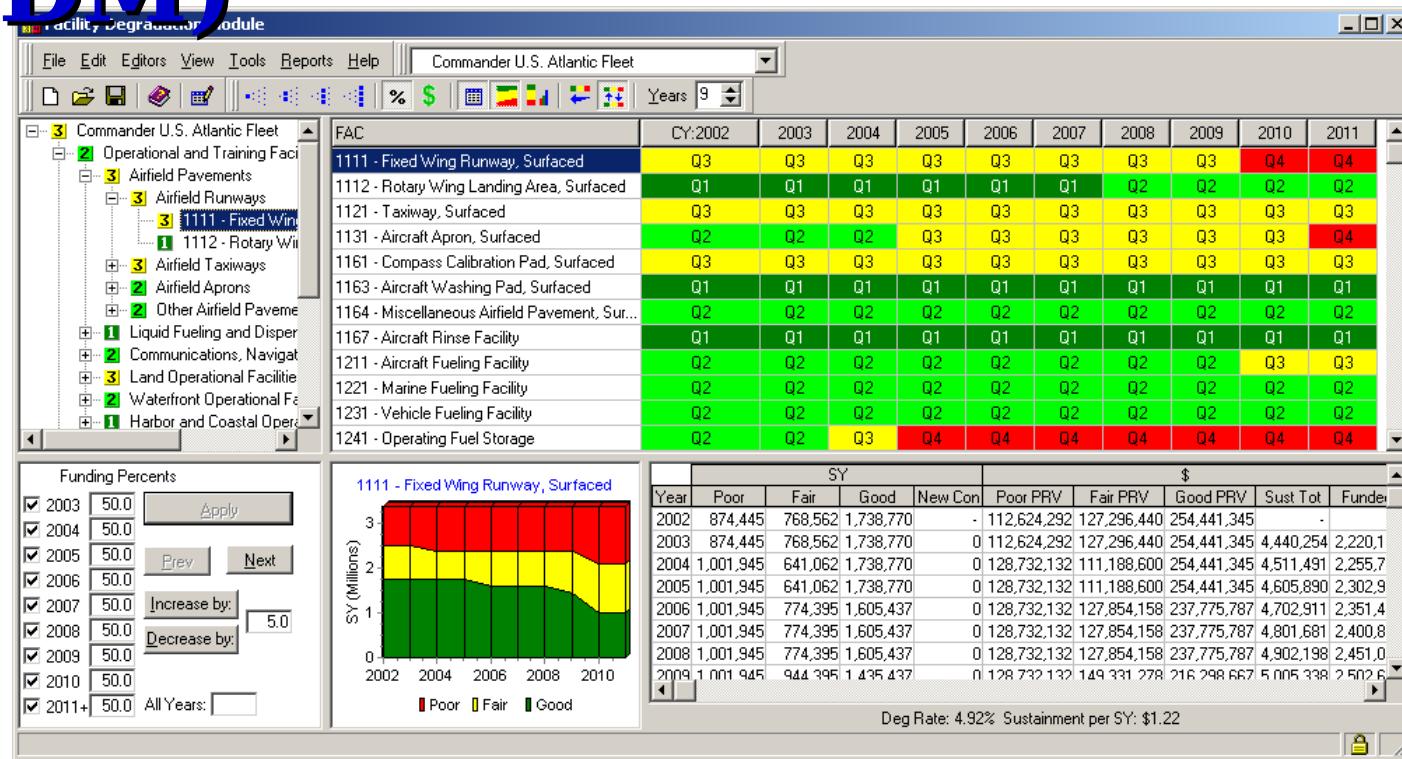
The FDM provides a prediction of the future condition of facilities based on current condition, the degradation of a facility condition, and a user-entered percentage of sustainment funding.

Mission Dependency Index (MDI)

Simple, easy to use, meaningful methodology for:

- Determining operational relationships between   infrastructure and mission

- Prioritizing Maintenance and Repair needs

MDI is a function of interruptability of functions and relocatability of functions

MDI   Mission Dependency Index: $1 \leq MDI \leq 100$

MD$_w$ Mission **Intra**dependency (**Within** Mission); $1 \leq$ MD$_b \leq 6$

MD   Mission **Inter**dependency (**Between** Missions) $1 \leq$ MD ≤ 6

n   Number of Mission **Inter**dependencies ($0 \leq n \leq 10$)

fc   Facili

$$MDI = \frac{\{16.5 [MDw + \underline{MD_{b\ avg}} + .025n] - 15.5\} \times f}{8}$$

85.7% □ MDw
10.7% ■ MDb
3.6% □ n
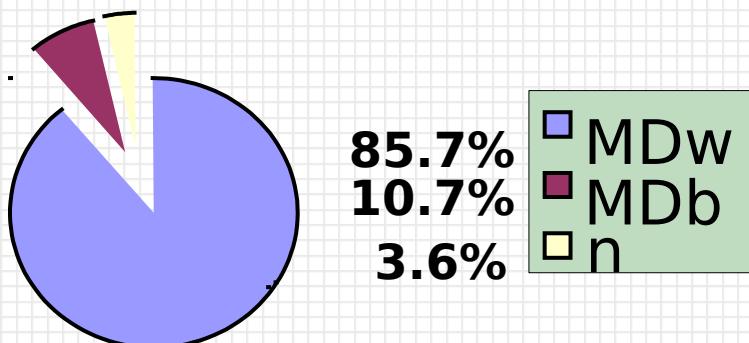
CONTACT:

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ADDITIONAL SLIDES

Shore Installation Support of Fleet Readiness

OUSD Models
- FSM
- FRM

OBOS Performance Metrics

Real Property Maintenance Activities (RPMA)
- Sustainment
- R&M
- Facilities Services
- Facilities Mgmnt
- Utilities Ops
- Demo
- AT/FP
- New Footprint

Installation Readiness Reporting
(Navy IRRS/DoD IRR)

Navy Continuous Inspection Program
- Control (includes Specialized)
- Preventive Maint.
- Operator

Business Enterprise Architecture

Supplier Relationships

Warfighter

Decision Makers

Business Operations

Systems and Technology Infrastructure

Financial and Management Reporting

Logistics

Human Resource Management

Collections, Accounting Receivables, and Cash Management

Strategic Planning and Budgeting

Accounting

Procurement, Payables-Acquisitions and Disbursement

Integrated with Other Government Partners

Accountability to the Public

Sound Financial Management

World-Class Business Operations in Support of the Warfighter